

13-24 LIBERATOR in action

by STEVE BIRDSALL illustrated by Don Greer



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Following a trail of target smoke markers, two B-24J's of the 767th Bomber Squadron, 461 Bomber Group prepare to release their load over Germany, March 1945.

Other in Action titles by Steve Birdsall B-17 in Action

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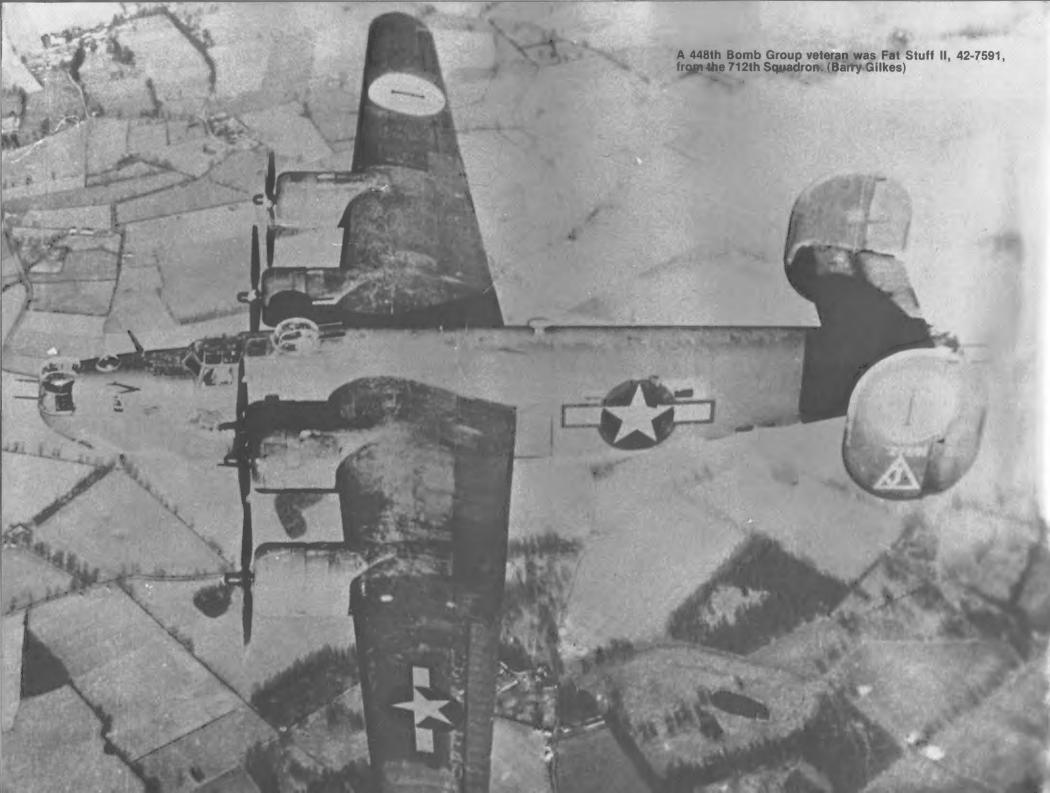
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Dinky, 42-40325, a B-24D-50-CO from the 90th Bomb Group. (T/Sgt. M. H. Clay)





The Story of the Liberator

The Liberator was conceived in January 1939, when General "Hap" Arnold invited Consolidated to come up with a design superior to Boeing's Flying Fortress. The company's preliminary data was impressive enough to warrant a contract for a prototype, and the design team under Isaac Laddon went to work in earnest. Their first consideration was range, and they selected the wing designed by David Davis for its great efficiency; the wings were shoulder mounted, allowing a capacious fuselage, and a twin rudder and fin assembly was chosen. The aircraft had a tricycle undercarriage and the bomb bay was divided into front and rear compartments, with unique roller-type doors which retracted up the sides from the central keel beam.

In the first Liberator, Consolidated Model 32, there was provision for a few hand-held .30-caliber machine guns, and the gleaming prototype, dubbed XB-24 by the Air Corps, flew for the first time on December 29, 1939. By then the Air Corps had already placed an order for seven YB-24s, and thirty-six B-24As for evaluation. The French and British ordered 284 aircraft between them.

Weighing 41,000 pounds gross, the XB-24 was powered by four 1200 horsepower Pratt & Whitney Twin Wasps. The wingspan was 110 feet, and the bomber was 63 feet long. The test flights of the lumbering aircraft were successful, although the maximum speed was slightly less than that of the current model of the Flying Fortress. The range requirements were more than met. During 1940 the YB-24 was delivered, the only difference between it and the XB-24 being the addition of rubber de-icing boots on the tail and wings, increased gross weight, and airscrew spinners which were later discarded.

The fall of France led to their order being transferred to the British, and the first production Liberators were six LB-30As, paid for in cash by England. They were built to British specifications and were used on the Return Ferry Service between Canada and Scotland. The next twenty aircraft, also for England, were known as Liberator Is, and were the first to see operational service. Bristling with aerials and a gun pack containing four 20-mm cannon, they

quickly proved themselves in the desperate campaign against the German U-Boats.

The Army Air Forces received their first B-24A in June 1941, one of the nine built. These aircraft went to Ferrying Command, operating between Canada and England. One of the B-24As pioneered the South Atlantic ferry route and in September two of the Liberators flew the Harriman mission to Moscow, and yet another B-24A was the first aircraft over the Greenland ice cap. Two had been detailed to fly reconnaissance over Japanese positions in the Marshall and Caroline Islands, but only one had reached Hawaii by December 7, 1941, and it was destroyed in a hangar at Hickham Field.

The next model was the Liberator II, unique to the Royal Air Force and with an extended nose adding about three feet to the aircraft's length. Four-gun Boulton-Paul .303 turrets were fitted in the mid-upper position and in the tail. The first of the Liberator IIs crashed on June 2, 1941, killing Consolidated test pilot William Wheatley, but other Liberator IIs went on to do magnificent work; equipping two squadrons of Bomber Command and three of Coastal Command. Unarmed Liberator IIs flew with the Return Ferry Service, British Overseas Airways, Qantas and Southern Cross Airways, and one was Winston Churchill's personal transport, the "Commando".

After Pearl Harbor the United States took over fifty-one undelivered Liberator IIs; called LB-30s by the air force, three of these Liberators attacked Kendari on Celebes on January 16, 1942, the first time American-manned Liberators took part in a bombing attack. Others went to Alaska, Hawaii and Panama, while some were used for training and as transports.

The XB-24B was a reworking of the XB-24, with self-sealing tanks, armor and turbosuperchargers which resulted in a top speed of 310 miles per hour. This led to nine B-24Cs, which carried a Martin upper turret and Consolidated tail turret, each with two of the .50-caliber machine guns which were quickly replacing the lighter .30 as hard lessons were learned in combat.

The following model of the Liberator was the B-24D, and

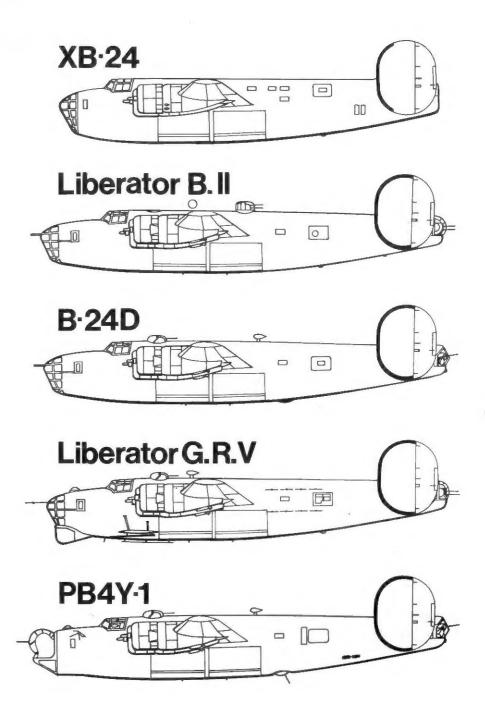
production went into high gear. Consolidated built 2,415 B-24Ds at their San Diego plant, 303 at Fort Worth, and Douglas built ten at Tulsa in Oklahoma. Early B-24Ds had a hand-held nose gun, a Bendix lower turret and four other guns, but later aircraft were equipped with a single ventral gun which fired through the camera hatch, and still later two more nose guns were added, plus waist guns, meaning that the Liberator carried ten defensive guns in all. The bomb load was increased to 12,800 pounds, and maximum gross weight climbed to 71,200 pounds. The hand-held tunnel gun was eventually replaced by the Sperry ball turret.

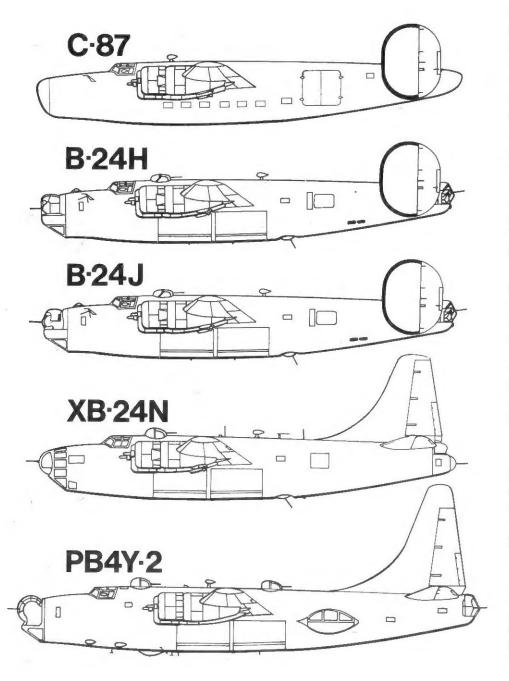
The first American B-24D unit in combat was the Halpro force-twenty-three Liberators under the command of Colonel Harry Halverson. They were in the Middle East by the middle of 1942, and attacked the Ploesti oilfields, harassed Axis shipping, and helped fill the breach during the crucial phases of the campaign against Rommel. The 98th Bomb Group joined the Ninth Air Force and went into combat on August 1, 1942, B-24Ds went to war with the Eighth Air Force's 93rd Bomb Group on October 9, 1942, and in the Southwest Pacific the 90th Bomb Group took over the heavy bomber role in Kenney's Fifth Air Force in November 1942. By the end of the war Liberators would fly with every American air force, and those of several other countries.

The British called their B-24Ds Liberator IIIs when equipped to their specifications, or Liberator IIIAs with American equipment on aircraft supplied under Lend-Lease, and most went to Coastal Command. The U.S. Navy received B-24Ds as PB4Y-1s and these aircraft went to both the Pacific and European Theaters. The first C-87 Liberator Expresses were B-24Ds converted as transports on the production line, and in all 280 C-87s and six C-87As were built, all at Fort Worth. Another B-24D was modified as the XB-41, with fourteen machine guns and provision for 11,000 rounds of ammunition; this was to be a "bomber escort" but was never tested operationally.

The B-24E differed little from its predecessor, and one was modified in late 1943 as the XC-109, a fuel tanker with nose and bomb bay fuel tanks.

Combat in Europe and the Pacific had revealed that the B-24D was vulnerable to head-on attack, and various solutions were tried. Twin nose guns, lashed together, were used in Europe, but they were difficult to use, although some crews maintain it was a better





arrangement than the later nose turret, as far as overall performance of the aircraft was concerned. The 90th Bomb Group in the Southwest Pacific pioneered the installation of a Consolidated tail turret in the Liberator's nose, and similarly successful work was carried out at the Hawaiian Air Depot. Later Navy B-24Ds were equippped with the distinctive Erco turret, which extended the nose about three feet. Some B-24Ds were fitted with twin waist guns, the most successful experiment being in the 44th Group, where Lieutenant Bill Strong and his crew designed a special mounting for use in their plane, "Baldy and His Brood".

Ford Motor Company began their Liberator production with 480 B-24Es, built at the huge Willow Run plant in Michigan, and another 311 B-24Es were built by Douglas and Consolidated at Fort Worth. The sole XB-24F was a modification of a B-24D, with a thermal de-icing system.

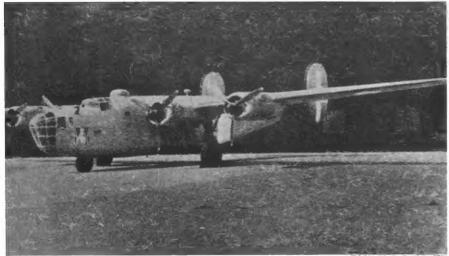
There were 430 B-24Gs, all built in Dallas by the fourth producer of the Liberator, North American Aviation. These aircraft were not all the same - the first twenty-five were without the electrically powered Emerson nose turret, and although later aircraft were equivalent to the B-24H, they were not redesignated.

The first Liberator to be fitted with a nose turret on the production line was the B-24H, and Consolidated built 738 at Fort Worth, with Emerson electric turrets. Another 1,780 were built at Willow Run, and 582 at Tulsa, Ford and Douglas using the Motor Products hydraulic turret.

The most prolific model of the Liberator was the B-24J, built at all five factories and differing little in essentials from the B-24H. Around 1,200 went to the Royal Air Force, others became F-7As and F-7Bs, equipped with six aerial cameras, and more went to the Navy, where they were still called PB4Y-1s, carrying the Erco nose turret. Ford built 1,587 B-24Js, North American 536, Douglas 205, Consolidated Fort Worth 1,558 and San Diego 2,792. There were 6,678 B-24Js in all.

Similar to the B-24J, the B-24L was fitted with a lighter tail turret designed by Consolidated's Tucson modification center. This gave a greater field of fire, was easier to manipulate and saved some two hundred pounds in weight. Ford produced 1,250 aircraft at Willow Run, and the other 417 were built by Consolidated at San Diego.

The last model of the Liberator to see quantity production was



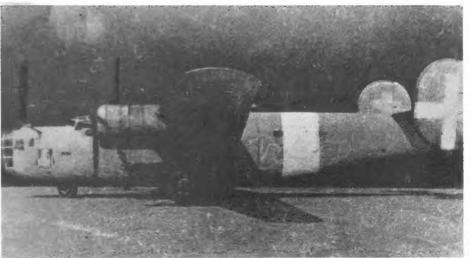
(Alberto Salvati)



the B-24M, which was fitted with a light power tail turret, and 2,593 aircraft were built at San Diego and Willow Run. The XB-24P was a modified B-24D which was used for fire control research, and the XB-24Q was a B-24L with an experimental radar-controlled tail installation.

Back in 1942 it had been reasoned that the B-24 would have greater stability with a single fin, and a B-24D was modified and designated XB-24K in 1943. The high-tailed test aircraft proved the theory regarding stability and control and in April 1944 the decision was made that the twin tail assembly would no longer be used. However, only the XB-24N and seven YB-24Ns were built before May 31, 1945, when Liberator production was ended, and other orders for the single-tailed B-24N were cancelled. The Navy received 739 single-tailed Liberators which they had contracted for - these were heavily modified and known as PB4Y-2 Privateers.

In all 18,482 Liberators were built, but obsolescence claimed the bomber quickly, until by 1951 only one B-24 remained on the USAF's inventory.



(Alberto Salvati)



(Alberto Salvati)



Three combat groups took the early B-24s to far-flung battlefields; the 90th Group went to the Southwest Pacific, the 93rd introduced the Liberator to the Eighth Air Force, and the 98th went to the Middle East. Sky Lady, a B-24D-15-CO, 41-24043, went to war with the 90th Group's 400th Squadron. (T/Sgt. M. H. Clay)





Battle-damaged tail turret on a 44th Bomb Group aircraft. (Ursell Harvell)

(Above Right)

Except for the crews' chosen nickname, early 90th Group B-24s carried no distinguishing insignia. Nor did they need it, being the only B-24s in General Kenney's Fifth Air Force. The Dude's serial number was 42-40326, and she was a B-24D-50-CO. (T/Sgt. M. H. Clay)

(Right)

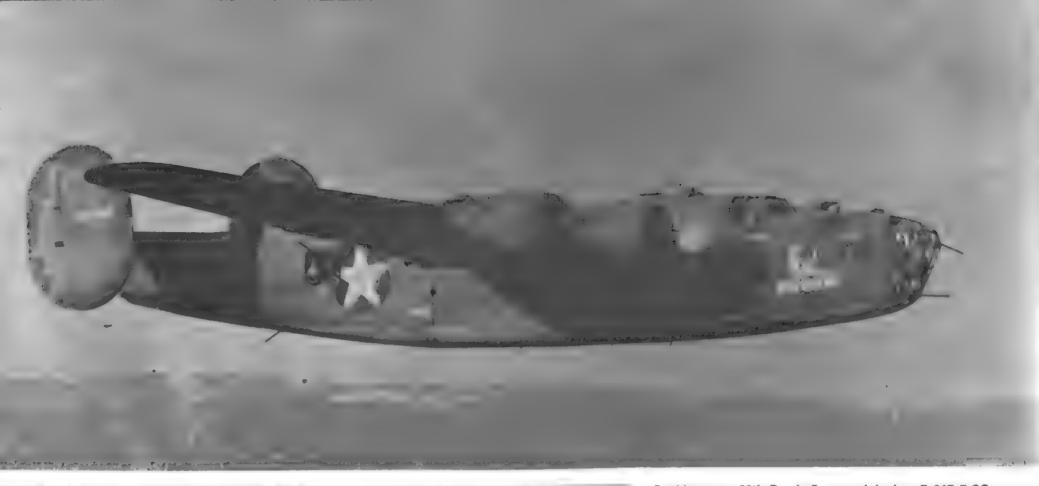
Tidewater Tillie, from Colonel Jack Roberts' 480th Antisubmarine Group, flying out of Port Lyautey in French Morocco. These white-bellied B-24Ds had a radome in place of the ball turret, additional fuel capacity, and were stripped of armor plating. (USAF)

(Left)

Lemon Drop, from the 44th Bomb Group, the Eight Balls. She survived all her missions and was "retired" to become the group's black and yellow striped assembly ship. (Ursell Harvell)



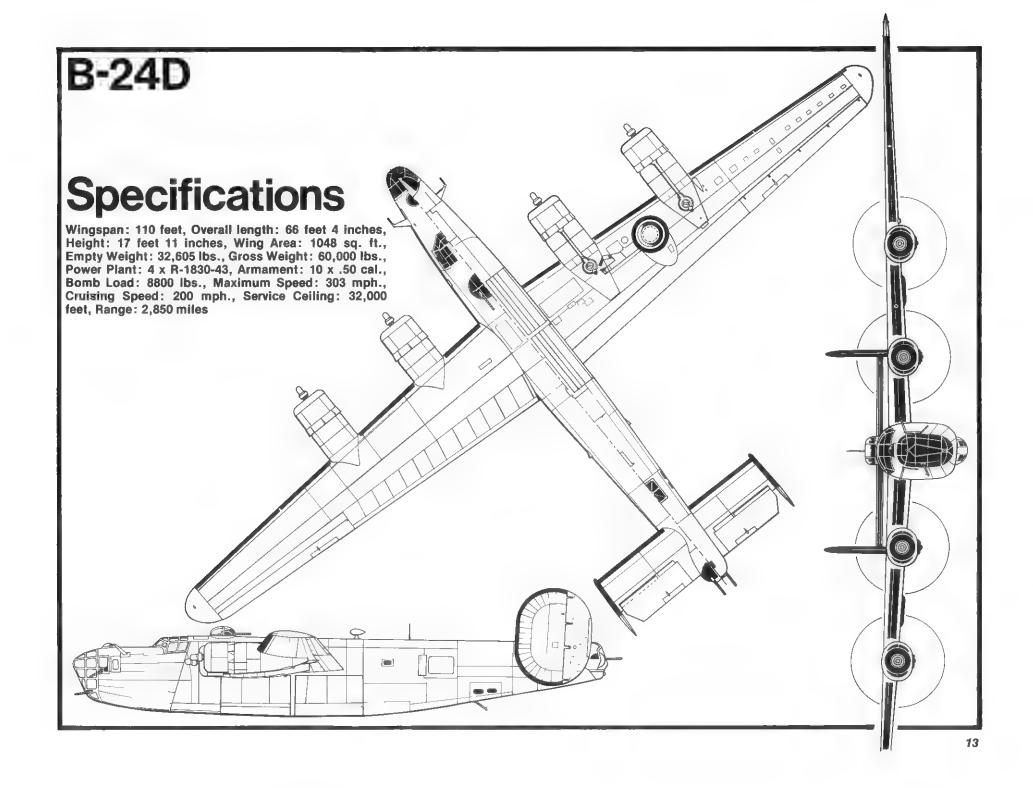




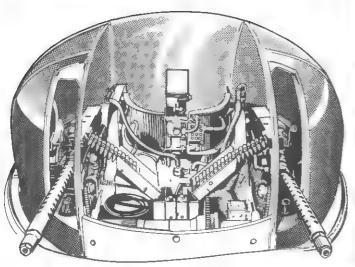


Cookie was a 90th Bomb Group original, a B-24D-7-CO serialled 41-23829. On one night mission to Rabaul she was caught in the searchlights and her pilot, Lleutenant Cook, escaped by putting the plane into a 400m.p.h. dive. She got home safely, but a check the following morning revealed that she needed a new pair of wings. (T/Sgt. H. H. Clay)

Brian Flavelle's Wongo Wongo!, from the 376th Bomb Group's 512th Squadron, takes off on the ill-fated Ploesti mission of August 1, 1943. (USAF)









Martin Dorsal Turret

(Above Right)
This 445th Group Liberator, 42-100353, a B-24J-95-CO, got all the way home to Metfield with severe battle damage. Then one of the sturdiest trees in the British Isles finished the job. (USAF)



A B-24D-135-CO from the Jolly Rogers, 42-41127. (Jim Stone)







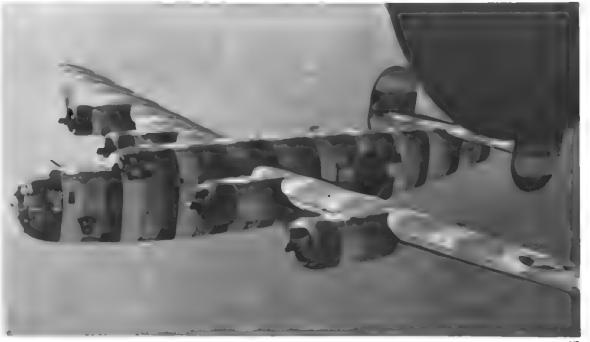


The 392nd Bomb Group's assembly ship, with one of the most unusual paint jobs of the war. Underneath it she was B-24D-1-CO 41-23689, and had flown combat as Minerva in the 44th Bomb Group. (Bill Robertle)

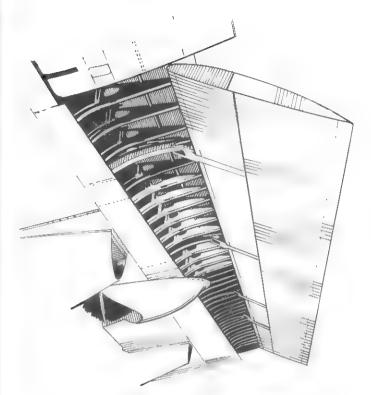
A handful of war-weary B-24Ds were stripped of armament, painted in gaudy, highly visible color schemes, and distributed to the Eighth's groups to aid assembly. Ball of Fire, 41-23667, stayed with her original group, the 93rd. The stripes were white, black and yellow. (Don Olds)

(Left)

Returned to the States after forty-eight missions, Tokio Express carries the grinning skull and crossed bombs which the 90th Group adopted as their insignia. She was a B-24D-15-CO, serial number 41-24074. (Art Rogers)







Flap Detail

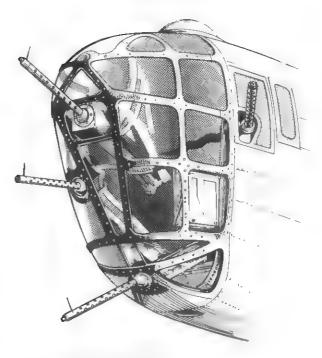
Lazy Lou, formating with the 93rd Group's 42-7655, was an original aircraft from the 446th Bomb Group. Her serial was 42-7609, and both were B-24H-1-FOs built at Willow Run. (USAF)

(Right)

The 448th Bomb Group took their B-24s to England late in 1943. Lady From Bristol, a B-24H-5-FO serialled 42-52100, flew with the 714th Squadron. (Barry Gilkes)







B-24D Nose with Extra Armament

On September 27, 1944 the 445th Bomb Group suffered the greatest loss of any Eighth Air Force unit in a single mission - twenty-five were shot out of the sky and five more crashed on landing. These two are from the 703rd Squadron, with B-24H-20-FO 42-94921 in the foreground. (Barry Gilkes)

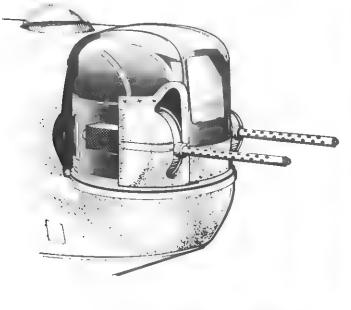
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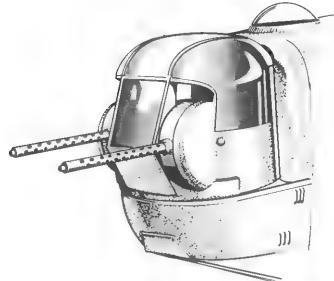
The most numerous model of the Liberator was the B-24J; 42-72989 was a B-24J-1-CO, the sixteenth of 4,350 built in San Diego. (USAF)

(Below Right)

Bag O'Bolts, 42-7764, went overseas with the 715th Squadron of the 448th Bomb Group. A B-24H-5-FO, she brought back over 400 bullet and flak holes from the Big Week mission on February 21, 1944. (Barry Gilkes)

B-24H Emerson Turret





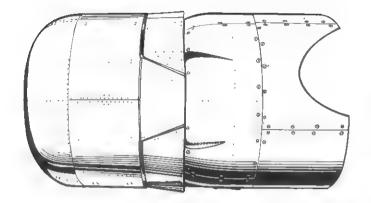
B-24J Consolidated Turret





(Left)
Little Jo of the 713th Squadron, 448th Bomb Group.
(USAF)

Sunshine was a B-24H with an offbeat story to tell. In April 1944 she landed at Venegono airport in Italy, and the Germans made a movie showing her "surrendering". The crewmen in American uniforms are Germans, but the undamaged aircraft made the whole stunt look convincing. Sunshine had belonged to the 716th Squadron of the 449th Bomb Group. (Bundesarchiv, Imperial War Museum)



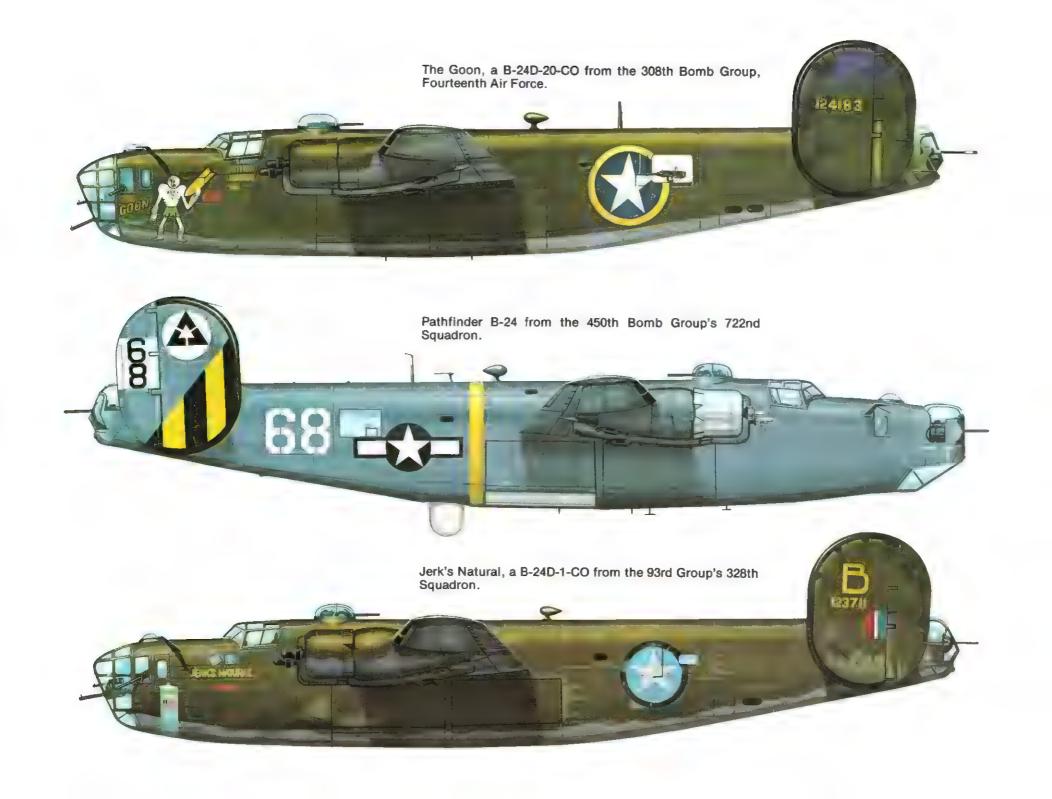
Engine Nacelle

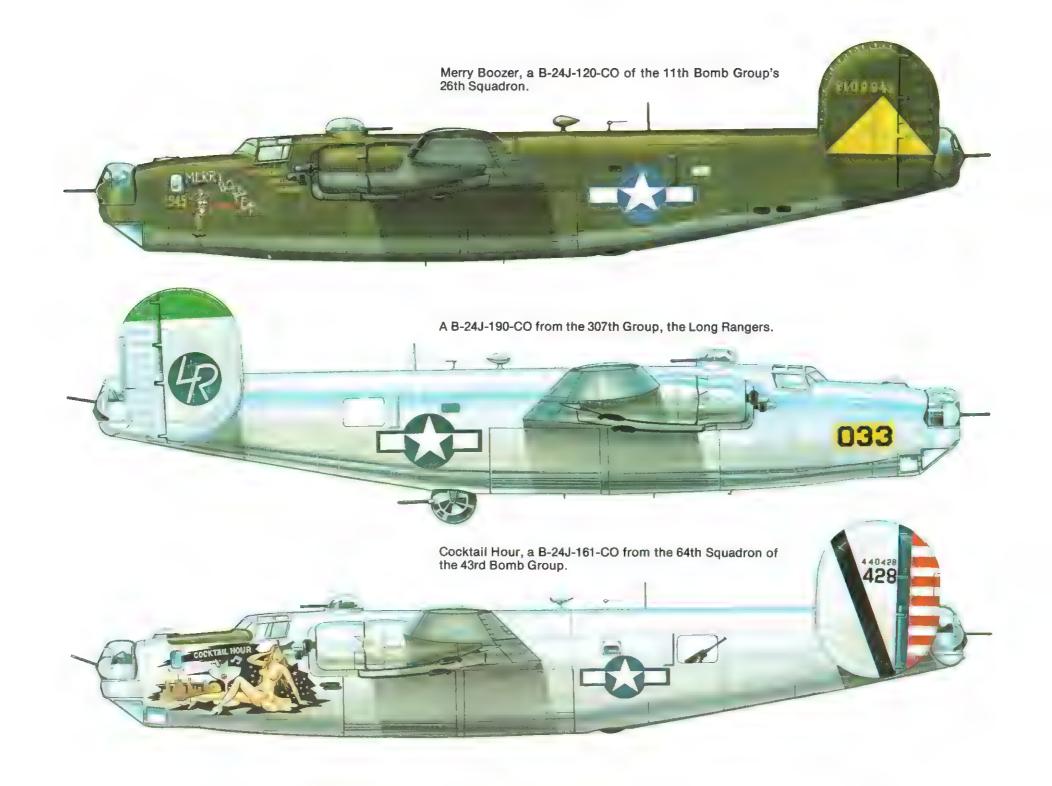






This B-24J-50-CO, 42-73482, carries the white diagonal tail stripe of the 43rd Group's 64th Squadron. (Lewis B. Whitworth)







Lieutenant Edward Sievers, pilot of the 458th Group's Wabbit Twacks, runs a finger along the target route as he discusses an Easter 1944 mission with his navigator and co-pilot. (USAF)





Fat Stuff II heads back to her hardstand after the Berlin mission of March 22, 1944. (USAF)

Armorers from the 392nd Bomb Group load Ford's Folly for a D-Day mission in support of the ground troops. (USAF)

(Left)
The tiny Seventh Air Force's 11th Bomb Group gets ready to roll in May 1944. (Navy Department)









Corporal Al Merkling of the 20th Combat Mapping Squadron adds finishing touches to his painting on the F-7 Patched Up Piece. (Al Merkling)

(Above Left)

When the 20th Combat Mapping Squadron scraped the blue paint from their F-7As, it meant some touching up jobs for artist Merkling. He was particularly chagrined at the damage done to Patched Up Piece. Her serial number was 42-64047, and before modification she was the first B-24J-1 produced at Fort Worth. (Al Merkling)

(Bottom Left)

Lieutenant Ralph Brower's F-7A, The Rip Snorter, 42-73047, at Nadzab in New Guinea. Her tail is yellow and her rudders have been left blue after the paint removal. (Al Merkling)



A black-tailed B-24J-1-NT from the 445th's 701st Squadron and built by North American in Dallas. (Barry Gilkes)



A waist gunner in a 44th Group B-24, over the beachhead on June 6, 1944. (Ursell Harvell)



Waist Gun Position

Looking aft to the tail turret in a 44th Group B-24 over the English Channel on D-Day. (Ursell Harvell)

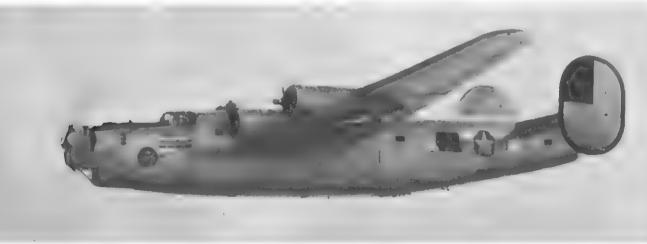
(Left)

Thirteenth Air Force waist gunners, a world away from the thin, cold skies of Europe. (USAF)



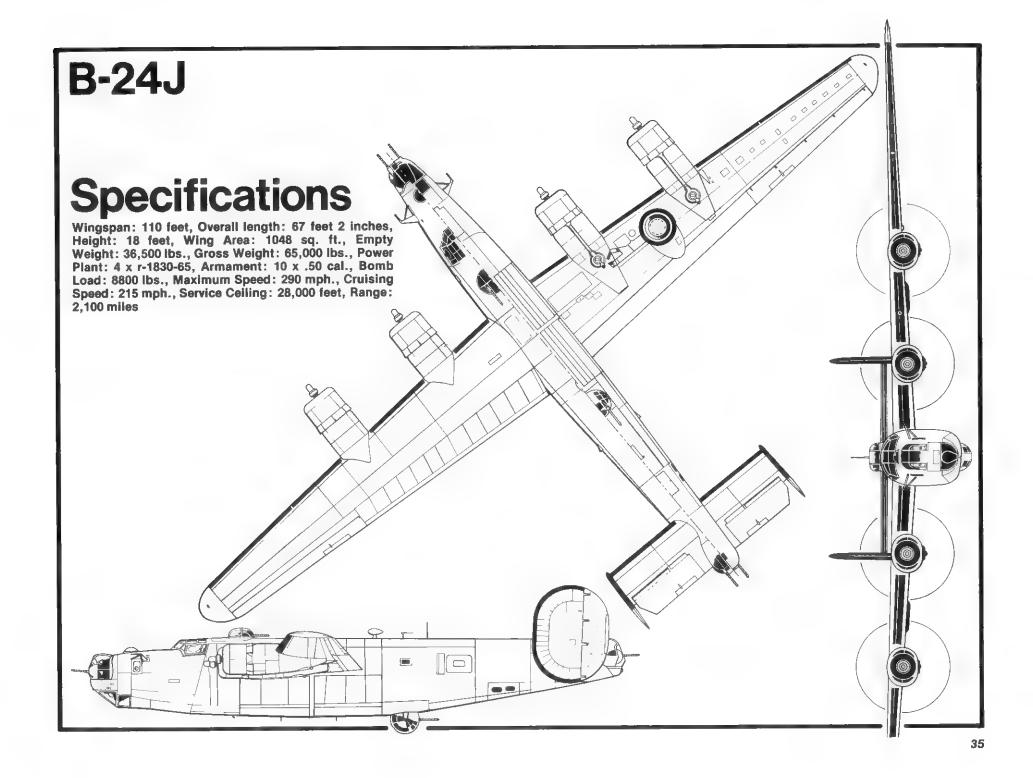






Heading out from northern Australia on a combat mission, this 528th Squadron, 380th Bomb Group Liberator carries no national insignia while her camouflage is in the process of being stripped away. She is the last B-24J-10-CO, 42-73114. (Joe Dally)

A B-24J from the 528th Squadron, carrying the black quadrant which was used as squadron identification in the 380th Bomb Group before they adopted their "circus" markings. (George Grover)







John Noble's Hangover Haven, 42-64053, an F-7A from the 20th Combat Mapping Squadron. (Frank Smith)

(Left

Flak tore this huge hole in the 706th Squadron's Wistful Vista, killing one waist gunner and wounding the other. (Austin Boyle)

(Right

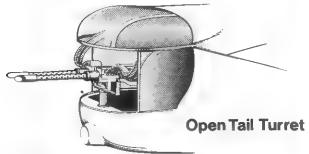
Bombs rain down on Orleans, France, during a support mission on June 14, 1944. This is a B-24H-20-CF, 42-50318, from the 446th's 706th Squadron. (USAF)







This aircraft from the 26th Squadron carries the modified, open tail position peculiar to B-24s in the South and Central Pacific. The guns were mounted on a post and the aircraft was a B-24J-120-CO, serialled 42-109947. (Barry Gilkes)



(Right)

A Pathfinder B-24 from the 93rd Group's 329th Squadron, with red and black checks on her nose denoting her special role. (Gerry Collins)

(Left)

The 467th Bomb Group over Dole, France, on August 14, 1944. (USAF)









Nana and Wonder Gal flew with the 63rd Bomb Squadron, which became the Fifth Air Force's "snooper" unit and flew with the 43rd Bomb Group. Their all-black Liberators were very successful against Japanese shipping. (E. P. Stevens and Frank Smith)

(Right)

A red-tailed 451st Group B-24 falls away before the onslaught of FockeWulf 190s on the August 20, 1944 mission to Markersdorf. (Leo Stoutsenberger)







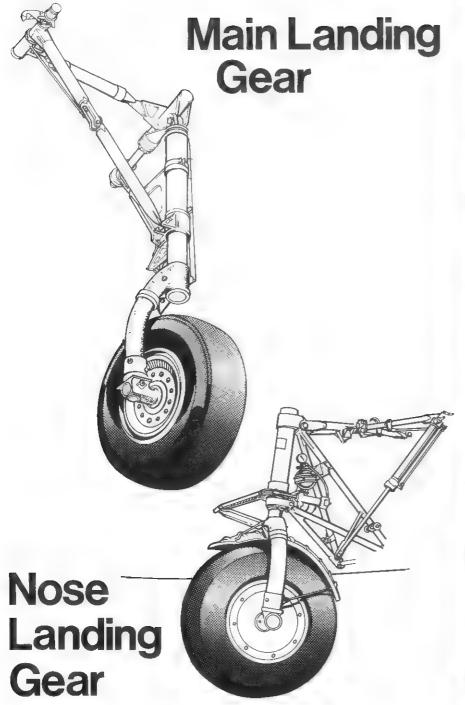
Round Trip Ticket, 44-41538, a B-24L-5-CO, with the Red Raiders' 33rd Squadron over the Philippines. (Bill Miller)

(Left)

B-24J-175-CO 44-40723, flying with the 2nd Squadron of the 22nd Bomb Group, the Red Raiders. (Bill Miller)

(Right)

A yellow-tailed B-24 from the 465th Bomb Group over Scaramanga Harbor on September 24, 1944. (USAF)









(Above Left) (Above)

Ronnie, an original 446th Group aircraft, was the first Liberator to fly one hundred missions with the Eighth Air Force. She was named in honor of Sergeant Ronald Gannon, a waist gunner who had contracted a form of soslow paralysis and died while the group was training in Denver. At first Ronnie aborted four missions in a row, but racked up 105 before a forced landing in France in January 1945. She was a B-24H-1-CF, serial number 41-29144. (Austin Boyle)

A combat artist who signed himself simply "Sgt. Short" did a lot of work in the Jolly Rogers, including this lusty scene. (Frederick A. Johnsen)

(Right)

As a smoke marker drifts lazily, B-24s drone toward Zossen on March 15, 1945. This aircraft, 44-50537, is a B-24J-165-CO, from the 93rd's 328th Bomb Squadron. (USAF)









Rovin' Redhead, Lieutenant Commander Harvey Paige's PB4Y-1. She carried the Bureau Number 65299, and flew with VD-1 in the Marianas. (Peter M. Bowers)

(Right)

A 307th Group Long Ranger over Jesselton, Borneo, in the middle of 1945. The aircraft is a B-24L-1-CO, number 44-41419. (USAF)

(Above Far Left)

Bad Penny, 44-41314, a B-24J-205-CO from the Jolly Rogers. (General George C. Kenney)

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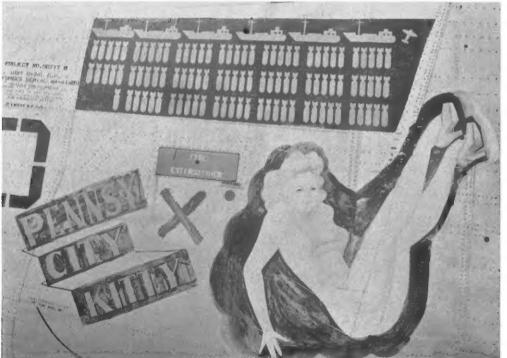
Two 409th Squadron, 93rd Bomb Group aircraft cruise past a deadly flak pattern during the mission to Augsburg on March 1, 1945. (USAF)

(Left)

Star Dust, from Kelly's Cobras, the 494th Bomb Group, after bombing Koror on May 1, 1945. She Is a B-24L-10-CO, serial number 44-41610, and her black tail markings denote the 867th Bomb Squadron. (USAF)









(Above Left)(Above)(Right)

An anonymous artist began decorating 43rd Bomb Group Liberators on Ie Shima in 1945. Barbara Jean, It Ain't So Funny and The Dragon and His Tail were among them. (Art Handel, Joe Fetherston, Stewart Bolling).

(Left)

Pennsy City Kitty flew 101 missions with the 5th Group, the Bomber Barons. She was a B-24L-5-CO, number 44-41480. (General George C. Kenney)









20th Combat Mapping Squadron, 6th Photo Group



65th Bomb Squadron, 43rd Bomb Group



321st Bomb Squadron, 90th Bomb Group



824th Bomb Squadron, 484th Bomb Group



717th Bomb Squadron, 449th Bomb Group



859th Bomb Squadron, 492nd Bomb Group